

# Questel-Orbit QWEB

**Current session 13/11/2002**

..FILE / ..INFO / ..GUIDE

**Query/Command : FILE PLUSPAT**

QUESTEL - Time in minutes : 0,73  
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	Estimated cost :	0.63	USD
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Estimated total session cost :	0.63	USD	

Selected file: PLUSPAT

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Comprehensive Worldwide Patents database  
New Patent Citation Commands & FAM Citation Report - see INFO PATCITE  
Last update of file: 2002/11/06 (YYYY/MM/DD) 2002-44/UP (basic update)

Search statement 1

**Query/Command : US6013591/PN**

**\*\* SS 1: Results 1**

Search statement 2

**Query/Command : PRT FULL NONSTOP LEGALALL**

1 / 1 PLUSPAT - ©QUESTEL-ORBIT		
PN	-	US6013591 A 20000111 [US6013591]
TI	-	(A) Nanocrystalline apatites and composites, prostheses incorporating them, and method for their production
PA	-	(A) MASSACHUSETTS INST TECHNOLOGY (US)
IN	-	(A) YING JACKIE Y (US); AHN EDWARD S (US); NAKAHIRA ATSUSHI (JP)
AP	-	US793098 19980116 [1998US-0007930]

Questel Orbit QWEB

<b>PR</b>	-	US793098 19980116 [1998US-0007930] US3553597P 19970116 [1997US-P035535]
<b>IC</b>	-	(A) A61F-002/28 C01B-015/16 C04B-035/01
<b>EC</b>	-	A61L-027/12 A61L-027/32
<b>ICO</b>	-	K61F-002/00A6B2Z K61F-002/00A6E K61F-002/00L22E
<b>PCL</b>	-	ORIGINAL (O) : 501001000; CROSS-REFERENCE (X) : 106035000 423308000 423311000 424422000 424423000 427002270 428689000 428704000 623023710 623023760
<b>DT</b>	-	Basic
<b>CT</b>	-	US4097935; US4195366; US4207306; US4330514; US4497075; US5030474; US5134009; US5405436; US5427754; US5470803; US5501706; US5522893; US5542973; US5545254; US5667796 R.W. Siegel, "Recent Progress in Nanophase Materials", Processing and Properties of Nanocrystalline Materials, C.Suryanarayana, J.Singh and F.H.Froes, Eds., The Minerals, Metals & Materials Society, 1996, no month.  L.L. Hench, "Bioceramics From Concept to Clinic", American Ceramic Society Bulletin, vol. 72, No. 4, pp. 93-98 (Apr. 1993).  L.L. Hench, "Bioceramics From Concept to Clinic", J. Am.Ceram. Soc. 74 7, pp. 1487-1510 (1991), no month.  L.L. Hench and J. Wilson, An Introduction to Bioceramics, Chapter 1 "Introduction", pp. -124, L.L. Hench and J. Wilson, Eds., 1993. no month.  J.D. deBruijn et al., "Biological Responses to Calcium Phosphate Ceramics", Bone-Bonding--Reed Healthcare Communications, Ducheyne, Kokubo & Van Blitterswijk, Eds., pp. 57-72, 1992, no month.  M. Akao, et al., "Dense Polycrystalline .beta.Tricalcium Phosphate For Prosthetic Applications," J. of Materials Science, 17, pp. 343-346, 1982, no month.  M. Jarcho, et al., "Hydroxylapatite Synthesis and Characterization in Dense Polycrystalline Form", J. of Materials Science, 11, pp. 2027-2035 (1976), no month.  M. Akao et al., "Mechanical Properties of Sintered Hydroxyapatite for Prosthetic Applications", J. of Materials Science, 16, pp. 809-812 (1981), no month.  K. Niihara, et al., "New Nanocomposite Structural Ceramics", Nanophase and Nanocomposite Materials, S.Komarneni, J.C. Parker, G.J. Thomas, Eds., Mat. Res. Soc. Symp Proc., vol. 286, pp. 405-412 (1993), no month.
<b>STG</b>	-	(A) United States patent
<b>AB</b>	-	Methods for synthesis of nanocrystalline apatites are presented, as well as a series of specific reaction parameters that can be adjusted to tailor, in specific ways, properties in the recovered product. Particulate apatite compositions having average crystal size of less than 150 nm are provided. Products also can have a surface area of at least 40 m <sup>2</sup> /g and can be of high density. Hydroxyapatite material is investigated in particular detail.

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		Compositions of the invention can be used as prosthetic implants and coatings for prosthetic implants.
1 / 1 LGST - ©LEGSTAT		
PN	-	US 6013591 [US6013591]
AP	-	US 7930/98 19980116 [1998US-0007930]
DT	-	US-P
ACT	-	19980116 US/AE-A APPLICATION DATA (PATENT) US 7930/98 19980116 [1998US-0007930]  20000111 US/A PATENT  20020917 US/RF REISSUE APPLICATION FILED 20020111
UP	-	2002-38
1 / 1 CRXX - ©CLAIMS/RRX		
PN	-	6,013,591 A 20000111 [US6013591]
PA	-	Massachusetts Institute of Technology
ACT	-	20020111 REISSUE REQUESTED ISSUE DATE OF O.G.: 20020917 REISSUE REQUEST NUMBER: 10/044801 EXAMINATION GROUP RESPONSIBLE FOR REISSUEPROCESS: 1755  Reissue Patent Number:
1 / 1 PAST - ©Thomson Derwent		
AN	-	200238-001672
PN	-	6013591 A [US6013591]
OG	-	2002-09-17
ACT	-	REISSUE APPLICATION FILED

Query/Command : FILE INPADOC

## Questel Orbit QWEB

PLUSPAT - Time in minutes : 0,47  
The cost estimation below is based on Questel's  
standard price list

Estimated cost :	1.03	USD
Records displayed and billed :	1	
Estimated cost :	1.10	USD
Cost estimated for the last database search :	2.13	USD
Estimated total session cost :	2.76	USD

LGST - Time in minutes : 0,09  
The cost estimation below is based on Questel's  
standard price list

Estimated cost :	0.09	USD
Records displayed and billed :	1	
Estimated cost :	0.57	USD
Cost estimated for the last database search :	0.66	USD
Estimated total session cost :	3.42	USD

CRXX - Time in minutes : 0,03  
The cost estimation below is based on Questel's  
standard price list

Estimated cost :	0.04	USD
Records displayed and billed :	1	
Estimated cost :	5.00	USD
Cost estimated for the last database search :	5.04	USD
Estimated total session cost :	8.46	USD

PAST - Time in minutes : 0,08  
The cost estimation below is based on Questel's  
standard price list

Estimated cost :	0.15	USD
Records displayed and billed :	1	
Estimated cost :	5.61	USD
Cost estimated for the last database search :	5.76	USD
Estimated total session cost :	14.22	USD

LITA - Time in minutes : 0,00  
The cost estimation below is based on Questel's  
standard price list  
Estimated total session cost : 14.22 USD

Selected file: INPADOC

You are now connected to INPADOC  
Covers 1968/1973 thru weekly updates (2002-45)  
For information on content, (..)INFO INPD.

Search statement 1

Query/Command : FAM US6013591/PN

1 Patent Groups

**\*\* SS 1: Results 1**

Questel·Orbit QWEB

Search statement 2

Query/Command : FAMSTATE NONSTOP

1/1 INPADOC - ©INPADOC		
PN	-	US 6013591 A 20000111 [US6013591]
TI	-	NANOCRYSTALLINE APATITES AND COMPOSITES, PROSTHESES INCORPORATING THEM, AND METHOD FOR THEIR PRODUCTION
IN	-	YING JACKIE Y [US]; AHN EDWARD S [US]; NAKAHIRA ATSUSHI [JP]
PA	-	MASSACHUSETTS INST TECHNOLOGY [US]
AP	-	US 7930/98-A 19980116 [1998US-0007930]
PR	-	US 7930/98-A 19980116 [1998US-0007930] US 35535/97-P 19970116 [1997US-P035535]
IC	-	C01B-015/16; A61F-002/28; C04B-035/01
1/1 LEGALI - ©LEGSTAT		
PN	-	US 6013591 [US6013591]
AP	-	US 7930/98 19980116 [1998US-0007930]
DT	-	US-P
ACTE	-	19980116 US/AE-A APPLICATION DATA (PATENT) US 7930/98 19980116 [1998US-0007930]  20000111 US/A PATENT  20020917 US/RF REISSUE APPLICATION FILED 20020111
UP	-	2002-38

PATNO IS 6013591

DATE: NOVEMBER 13, 2002  
LIBRARY: PATENT  
FILE: ALL

Your search request is:  
PATNO IS 6013591

Number of PATENTS found with your search request through:  
LEVEL 1... 1

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To DISPLAY this PATENT press either the KWIC, FULL, CITE or SEGMENTS key.  
To MODIFY your search request, press the M key (for MODIFY) and then the ENTER key.

For further explanation, press the H key (for HELP) and then the ENTER key.

LEAF 1 - 1 PATENT

1. 6013591, January 11, 2000, Nanocrystalline apatites and composites, prostheses incorporating them, and method for their production, Ying, Jackie Y., Winchester, MA; Ahn, Edward S., Cambridge, MA; Nakahira, Atsushi, Kyoto, JP, 007930 (00), Massachusetts Institute of Technology, Cambridge, MA

CORE TERMS: sub, hydroxyapatite, apatite, nanocrystalline, sintering, concentration, particle, powder, sup, aging ...

UNITED STATES PATENT AND TRADEMARK OFFICE GRANTED PATENT

6013591

<=1> GET 1st DRAWING SHEET OF 6

January 11, 2000

Nanocrystalline apatites and composites, prostheses  
incorporating them, and method for their production

REISSUE: January 11, 2002 - Reissue Application filed Ex. Gp.: 1755; Re. S.N.  
10/044,801 September 17, 2002

APPL-NO: 007930 (00)

FILED-DATE: January 16, 1998

GRANTED-DATE: January 11, 2000

CORE TERMS: sub, hydroxyapatite, apatite, nanocrystalline, sintering,  
concentration, particle, powder, sup, aging ...

ENGLISH-ABST:

Methods for synthesis of nanocrystalline apatites are presented, as well as a series of specific reaction parameters that can be adjusted to tailor, in specific ways, properties in the recovered product. Particulate apatite compositions having average crystal size of less than 150 nm are provided. Products also can have a surface area of at least 40 m.<sup>2</sup>/g and can be of high density. <P><P> Hydroxyapatite material is investigated in particular detail. Compositions of the invention can be used as prosthetic implants and coatings for prosthetic implants.



6013591 OR 6,013,591

Your search request has found no CASES.

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